

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1.-14. (Canceled).

15. (Previously Presented) A fuel cell, comprising:

a MEA; and

a separator on which a gas passage groove is formed, wherein a cross-sectional area of a gas passage being changed in a direction in which the gas passage groove extends, while each of an opening width of the gas passage groove and a depth of the gas passage groove remains substantially constant,

wherein the gas passage groove includes a curved portion which is a transition portion between a side surface of the gas passage groove and a bottom surface of the gas passage groove, and the cross-sectional area of the gas passage is changed by changing a radius of curvature of at least one curved portion and the gas passage groove increases in width in a direction towards the MEA to form a fuel or oxidizing gas passage.

16. (Previously Presented) A fuel cell, comprising:

a separator on which a gas passage groove is formed, a cross-sectional area of a gas passage changes in a direction in which the gas passage groove extends, while each of an opening width of the gas passage groove and a depth of the gas passage groove remains substantially constant,

wherein the cross-sectional area of the gas passage being changed by changing a thickness of a surface treatment layer formed on a surface of the gas passage groove,

wherein the surface treatment layer being formed of epoxy resin or rubber and the thickness of the layer can be changed by applying a plurality of layers.

17. (Previously Presented) The fuel cell according to claim 15, wherein the radius of curvature of the curve portion of the gas passage groove on a downstream side is larger than the radius of curvature of the curve portion of the gas passage groove on the upstream side.

18. (Previously Presented) A fuel cell, comprising:

a metal separator including a gas passage groove being formed in the separator, the cross-sectional area of the gas passage groove changes in the direction, in which the gas passage groove extends,

wherein the cross-sectional area of the gas passage groove being changed by changing the thickness of a surface treatment layer formed on a surface of the gas passage groove,

wherein the surface treatment layer being formed of epoxy resin or rubber and the thickness of the layer can be changed by applying a plurality of layers.

19. (Previously Presented) The fuel cell according to claim 18, wherein the thickness of the surface treatment layer of the gas passage groove on a downstream side in the gas flow direction is larger than the thickness of the surface treatment layer of the gas passage groove on the upstream side in the gas flow direction.

20-23. (Canceled).